

EXPERT REPORT OF MARK CRAWSHAW Ph.D., FCAS, MAAA

Steadfast Insurance Company v. SMX 98, Inc. and SpawMaxwell Company, L.P.
United State District Court for the Southern District of Texas Houston Division
Civil Action No. 4:06-cv-2736



Mark Crawshaw, Ph.D., FCAS, MAAA
June 22, 2007

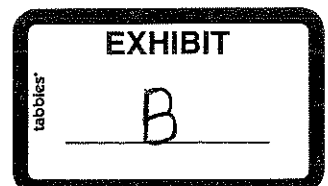


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1. EXECUTIVE SUMMARY

The SpawMaxwell Company (SpawMaxwell) requested that I, Mark Crawshaw Ph.D., FCAS, MAAA of Madison Consulting Group, prepare this report addressing actuarial issues in Civil Action No. 4:06-cv-2736 between the SpawMaxwell and Steadfast Insurance Company (Steadfast). A summary of my main findings and conclusions follow:

(1) There is a reasonable actuarial basis for Steadfast to charge SpawMaxwell a rate of \$20 per \$1,000 of subcontract cost for SpawMaxwell's uninsured subcontractors. This rate reasonably provides for the expected costs caused by the uninsured subcontractors that may become the responsibility of SpawMaxwell (and hence Steadfast).

(2) There is not a reasonable actuarial basis for Steadfast to charge SpawMaxwell a rate of \$20 per \$1,000 of subcontract cost for SpawMaxwell's insured subcontractors when the Bests rating is A- or lower. This is because the expected cost of claims and associated expenses caused by the insured subcontractors and that may become the responsibility of SpawMaxwell (and hence Steadfast) in the event the subcontractor's insurance company is unable to pay its claims, is significantly less than \$20 per \$1,000 of subcontract cost.

(3) Attachment MC-1 provides a schedule of actuarial rates to account for Steadfast's exposure to SpawMaxwell's insured and uninsured subcontractors. This schedule provides insurance rates per \$1,000 of subcontractor cost that vary based on the Best's Financial Strength Rating of the subcontractor's insurance company. This schedule of actuarial rates can be used in lieu of Steadfast's flat \$20 rate.

(4) Attachment MC-2 provides an illustration of the practical effect of applying the actuarial rates to the results of Steadfast's audit. It can be seen that the premium calculated using the actuarial rates (\$161 thousand) is significantly less than the premium calculated using Steadfast's \$20 rate (\$536 thousand). It is stressed that Attachment MC-2 is for illustrative purposes only and is based directly on the results of Steadfast's audit. I have made no attempt to correct the errors in the Best's Financial Strength Ratings assigned by the auditor of for any subcontractors the auditor may have erroneously classified as having no certificate of insurance. Before Attachment MC-2 is used to determine a premium amount the audit amounts should be corrected and the arithmetic on Attachment MC-2 should be recalculated.

(5) Although beyond the purpose of this report, I noticed that certain of the Best's Financial Strength Ratings assigned by the auditor appear to be in error. Specifically, some of the Best's Financial Strength Ratings determined by the auditor did not reflect changes in company names, misspellings and other factors; others did not reflect the Best's Financial Strength Rating during the policy period but rather at sometime after the policy expired; others did not consider changes in the Best's Financial Strength Rating that occurred during the policy period. These errors tended to cause the Best's Financial Strength Ratings determined by the auditor to be understated in some cases (see Attachment MC-3).

(6) I have not performed an exhaustive analysis of the accuracy of Steadfast's audit. It is possible that there maybe other errors in the auditor's assignment of Best's Financial Strength Ratings beyond those I have noted. In addition, counsel for SpawMaxwell has told me that there are subcontractors that were classified by the auditor as being uninsured when, in-fact, they were not. However, I have not performed any analysis of this issue.

(7) When developing the rates shown on Attachment MC-1 there were several points at which judgment was required to select a value from a range of reasonable alternatives. In making these selections, I erred on the side of being conservative – that is, I selected a value that was generous to Steadfast and resulted in a higher rate. I did this to demonstrate that the \$20 rate used by Steadfast is clearly substantially excessive for insured subcontractors even under very conservative assumptions, and to minimize the possibility of disputes with Steadfast about the selected values. Specific examples of conservatism in my analysis include:

- An assumption that 100% of the claims of an impaired insurance company will not be paid (Appendix MC-B, Sheet 1). In reality, impaired companies typically pay some portion of their claims.
- Selection of an underwriting profit load of 5% to include in the rates (Appendix MC-A, Sheet 4). In reality, insurance companies typically realized negative underwriting profit from general liability business in the period of the Policy.
- Selection of a loss cost multiplier (Appendix MC-A, Sheet 4) that is at the upper end of the range of calculated values.
- Selection of a ratio of subcontractor's payroll to cost that is at the upper end of the range of calculated values (Appendix MC-A, Sheet 3).
- Selecting a range of rates that encompass almost all, rather than just a middle range of indicated rates for the different classifications (Appendix MC-A, Sheet 2).
- Determining that the \$20 rate was reasonable for uninsured subcontractors based on the upper range of calculated values (Appendix MC-A, Sheet 1).
- I did not reduce the rates for subcontractors to reflect SpawMaxwell's deductible of \$15,000.

2. LIMITATIONS

2.01 Distribution, Limitations and Use

This report has been prepared for use in Steadfast vs. SpawMaxwell, Civil Action No. 4:06-cv-2736.

2.02 Contingencies

This report is based on information currently available to me. It is possible that new information may become available in the future that materially impacts the analysis and/or conclusions. Should this occur, I may revise my analysis and/or conclusions.

2.03 Data Sources

Appendix MC-C provides a summary of the data sources used in this analysis.

3. QUALIFICATIONS

3.01 Madison Consulting Group (MCG)

Madison Consulting Group (MCG) is an independent actuarial consulting firm based in Madison, Georgia.

3.02 Author

Mark Crawshaw PhD, FCAS, MAAA prepared this report. The opinions expressed in this report are those of Dr. Crawshaw. Dr. Crawshaw is a consulting actuary with, and Secretary/Treasurer of, MCG and has been a principal of MCG and/or its

predecessor firm since 1989. He is a Fellow of the Casualty Actuarial Society (FCAS) and a Member of the American Academy of Actuaries (MAAA). He holds a BA degree in Mathematics from Oxford University, England (1980); and, a PhD degree in Mathematics from the California Institute of Technology, Pasadena, California (1984). Dr. Crawshaw has over twenty years of experience in actuarial consulting. Appendix MC-D provides a copy of Dr. Crawshaw's Curriculum Vitae including a listing of testimony given over the past four years. This report was peer reviewed by Joe Smalley PhD, FCAS, MAAA of MCG. Appendix MC-E provides a copy of Dr. Smalley's Curriculum Vitae.

3.03 Expert Compensation

SpawMaxwell compensated MCG for this engagement based on an hourly rate of \$325 for Drs. Crawshaw and Smalley and \$50 to \$185 for other support staff.

4. BACKGROUND

This section provides background on the scope of this report and its foundations.

4.01 Context of the Report

The analysis contained in this report is based on the following assumptions (one or more of which may be subject to dispute in this case):

1. SpawMaxwell Company (SpawMaxwell) is a construction company with offices in Houston, Dallas and Austin, Texas. I understand all the company's operations are in Texas.
2. In the course of its business SpawMaxwell utilizes subcontractors.
3. SpawMaxwell is exposed to liability claims arising both from its own acts and omissions as well as vicariously from the acts and omissions of its subcontractors.
4. In order to limits its liability, I understand that SpawMaxwell routinely required its subcontractors to purchase general liability insurance policies with SpawMaxwell included as a named insured.
5. SpawMaxwell insured its liability exposure in (3) by purchasing a commercial general liability policy from Steadfast Insurance Company (the Policy) with a policy period 5/29/2002 to 5/29/2003.¹ The initial premium for the policy was \$177,500.²
6. The Policy contained an endorsement (Endorsement #10) compelling SpawMaxwell to require its subcontractors to purchase their own liability insurance policies, with limits of at least \$1 million per occurrence / \$1 million aggregate, and for those policies to include SpawMaxwell as an additional insured.³ The endorsement provided for an additional premium for uninsured subcontractors equal to \$20 per \$1000 of "sub cost."
7. After the Policy expired, Steadfast audited SpawMaxwell's use of subcontractors and the Certificates of Insurance provided to it by its subcontractors. For each subcontractor, the auditor determined the amount of the subcontract costs and the Best's Financial Strength Rating of the subcontractor's liability insurance company (if any) required in (6) above. In this way, the auditor classified the liability insurance using a letter grade (A through D with or without modifiers of "+" or "-"); NR (for not rated) or No-Certificate (or "uninsured" when the auditor could not locate an Insurance Certificate).
8. In its audit, Steadfast determined that any insurance with a rating of A- or less as well as the NR and No-Certificate categories should count as "uninsured" for the purpose of (6) above. Based on that determination, the rate of \$20 per \$1,000 of subcontract cost, and Endorsement #10; the auditor determined that

¹ SFI000033 through SFI000054.

² SFI000033. I understand the initial premium of \$177,500 was subsequently increased to \$254,075 following a final audit.

³ SFI000067 through SFI000068.

SpawMaxwell should pay Steadfast a premium of over \$500 thousand, in addition to the initial premium of \$177,500.

9. This report only addresses the determination of the additional premium of over \$500 thousand associated with Endorsement #10. It does not address how the initial premium of \$177,500 was determined.

4.02 Scope of the Report

SpawMaxwell defined the scope of my assignment and requested that this report:

1. Provide an actuarial opinion on the reasonableness (or not) of the \$20 rate per \$1000 of subcontract cost on Endorsement #10 as it pertains to both insured and non-insured sub-contractors; and,
2. Provide an actuarial opinion concerning actuarial rates for Endorsement #10 for both insured and non-insured subcontractors considering the Best's rating of the insurance company and other factors.

SpawMaxwell did not request me to perform a review of the accuracy of Steadfast's audit or to review its subcontractors' certificates of insurance.

4.03 Background on Best's Financial Strength Ratings

A.M. Best Company promulgates Best's Financial Strength Ratings for a large number of insurance companies. The objective of the Financial Strength Ratings is "to provide an opinion as to an insurer's financial strength and ability to meet its ongoing obligations to policyholders."⁴ The Best's Rating is arguably the leading system used for this purpose in the United States.

Best's explains its Financial Strength Ratings, in part, as follows:⁵

⁴ See Preface to 2006 Edition of Best's Insurance Reports – Property/Casualty, viii.

⁵ See Preface to 2006 Edition of Best's Insurance Reports – Property/Casualty, ix.

*"The Best's Financial Strength Rating scale is comprised of 16 individual ratings grouped into 10 categories, consisting of three **Secure** categories of "Superior," "Excellent" and "Good" and seven **Vulnerable** categories of "Fair," "Marginal," "Weak," "Poor," "Under Regulatory Supervision," "In Liquidation" and "Rating Suspended."*

Financial Strength Ratings

Secure

A++ and A+ (Superior)

Assigned to companies that have, in our opinion, a superior ability to meet their ongoing obligations to policy holders.

A and A- (Excellent)

Assigned to companies that have, in our opinion, an excellent ability to meet their ongoing obligations to policy holders.

B++ and B+ (Good)

Assigned to companies that have, in our opinion, a good ability to meet their ongoing obligations to policyholders.

Vulnerable

B and B- (Fair)

Assigned to companies that have, in our opinion, a fair ability to meet their ongoing obligations to policyholders, but are financially vulnerable to adverse changes in underwriting and economic conditions.

C++ and C- (Marginal)

Assigned to companies that have, in our opinion, a marginal ability to meet their ongoing obligations to policyholders, but are financially vulnerable to adverse changes in underwriting and economic conditions.

C and C- (Weak)

Assigned to companies that have, in our opinion, a weak ability to meet their ongoing obligations to policyholders, but are financially very vulnerable to adverse changes in underwriting and economic conditions.

D (Poor)

Assigned to companies that, in our opinion, may not have an ability to meet their ongoing obligations to policyholders and are financially extremely vulnerable to adverse changes in underwriting and economic conditions."

4.04 Relationship Between Best's Financial Strength Ratings and Probability of Financial Impairment

A.M. Best Company has published a report setting forth the impairment frequency of insurance companies by Best's Financial Strength Rating.⁶ The study involved experience from 1977 through 2002 and set forth the frequency of impairment after one, two, three... up to fifteen years. This report provides a basis for estimating the probability that a subcontractor's insurance company may become impaired at some point in the future and before all its claims, connected in any way with SpawMaxwell, have been settled.

4.05 Relationship Between Financial Impairment and Claims Payment

In the A.M. Best report described in 4.04, Best defines an insurance company to be impaired "upon the first official action taken by the insurance department in its state of domicile." Such actions include involuntary liquidation, as well as other regulatory procedures such as supervision, receivership, suspension of license etc.

In the rate analysis presented in this report, I have assumed that an impaired company is unable to pay any portion of its claims. In reality it is likely that an impaired company will pay at least a portion of its claims. In addition claims may also be paid by a third party (e.g., a reinsurer, state guaranty fund, codefendant etc). The assumption I made is conservative and leads to somewhat overstated rates on Attachment MC-1.

⁶ See Best's Impairment Rate and Rating Transition Study – 1977 to 2002.

4.06 Long Payment Pattern for Liability Claims

An important characteristic of general liability claims is their long payment pattern. It typically takes many years for all claims under a general liability policy to finally settle. This long payment pattern is a result of two time lags; the time between when an event occurs and a claim is made, and the time between when the claim is made and when it is finally settled. In my analysis I utilized a 15 year payout pattern based on insurance industry averages for general liability business published by the Internal Revenue Service.⁷ The long payment pattern is significant in this case as a subcontractor's insurance company effectively protects SpawMaxwell / Steadfast only if it is able to cover its claims over the entire 15 year period of the payout pattern. The payment pattern is important as defines the portion of claims that an insurance company pays prior to its impairment.

4.07 ISO Texas Industry Claim Costs

An insurance industry organization known as the Insurance Services Office (ISO) collects statistics from insurance companies, performs actuarial analysis on the statistics and then files claim costs and other rate information with the Texas Department of Insurance. It then publishes this information for insurance companies to use in developing insurance rates. In fact, the information published by ISO only needs to be loaded to include overhead expenses and cost-of-capital to produce a complete schedule of rates. The information published by ISO includes average claim amounts per \$1,000 of payroll for various classifications within the construction industry. This is the

⁷ See Internal Revenue Service Bulletin – January 12, 2004 – Rev. Proc. 2004-9.

standard industry source used by actuaries to develop or evaluate Texas general liability rates and already incorporates many of the projections and adjustments needed to develop actuarial rates. In this report this source is used to evaluate the reasonableness Steadfast's rate of \$20 per \$1,000 of subcontract cost for uninsured subcontractors.

4.08 Exposure Base

Rates for construction risks are often expressed either as a rate per \$1,000 of payroll or else as a rate per \$1,000 of subcontract cost. In this report it is necessary to convert between these bases. The conversion was accomplished based on the assumption that payroll typically amounts to about 30% of a contract price.

The factor of 30% was estimated at the conservative⁸ end of the range of values indicated by information published by the US Census Bureau (see MC-A, Sheet 3). I independently verified the reasonableness of this estimate by asking SpawMaxwell to provide their best estimate based on their experience and judgment and considering how SpawMaxwell does business. Mr. Tom Flaherty, Chief Financial Officer of SpawMaxwell, provided me an indication of 20% to 25%. This is consistent with my conservative estimate of 30%.

4.09 Actuarial Organizations and Credentials

The premier organization in the United States for educating and credentialing actuaries in the property/casualty area (note: general liability – the subject

⁸ Here, "conservative" means that the resulting rate indication is high and thus generous to Steadfast.

of this report- falls in this area) is the Casualty Actuarial Society. Membership is based on completion of a series of examinations and other factors. The highest designation is Fellow of the Casualty Actuarial Society (FCAS) and requires completion of all (currently nine) examinations. Dr. Crawshaw holds the FCAS designation.

The American Academy of Actuaries is the premier umbrella organization for actuaries in all practice areas in the United States. This organization determines qualification standards for its members (often including membership in another organization such as the Casualty Actuarial Society), establishes standards of practice, sets requirements for continuing education, administers a disciplinary process and performs other functions. A member of the American Academy of Actuaries is designated by the letters MAAA. Dr. Crawshaw holds the MAAA designation.

4.10 Actuarial Ratemaking Principles

In preparing this report, I applied the basic principles of actuarial ratemaking that are summarized in "Statement of Principles Regarding Property and Casualty Insurance Ratemaking" published by the Casualty Actuarial Society. The four basic principles are:

- Principle 1: A rate is an estimate of the expected value of future costs.**
- Principle 2: A rate provides for all costs associated with the transfer of risk.**
- Principle 3: A rate provides for the costs associated with an individual risk transfer.**
- Principle 4: A rate is reasonable and not excessive, inadequate, or unfairly discriminatory if it is an actuarially sound estimate of the expected value of all future costs associated with an individual risk transfer.**

In my experience these actuarial principles are generally acknowledged as being consistent with rating laws in the various states to the effect that rates should be adequate, non-excessive and not unfairly discriminatory.

These principles imply that actuarial ratemaking is prospective in nature. In other words, rates should be based on information available at the time the policy was written. Any subsequent events (e.g., insolvency of an insurance company, subsequent emergence of unusually favorable or unfavorable claims experience) are irrelevant to the determination of an actuarially appropriate rate.

These principles also imply that an actuarially determined rate should reflect expected underlying costs of the risk transfer. In the case at hand, this implies that the rate Steadfast charged SpawMaxwell for its subcontractors, should have varied depending on the impairment risk of the subcontractors' insurers. In particular, because the underlying costs for subcontractors insured with Best's Financial Strength Rating of A- or lower rated is demonstrably much less than the costs for uninsured subcontractors the rates should be correspondingly less.

4.11 Actuarial Standards of Practice

An actuarial standard of practice (ASOP) is a formal statement of actuarial standards published by the American Academy of Actuaries. An actuary who is a Member of the American Academy of Actuaries (MAAA) is required to follow the relevant ASOPs. ASOP No. 9 (Documentation and Disclosure in Property/Casualty

Insurance Ratemaking, Loss Reserving and Valuations) is relevant to this case and incorporates the actuarial Ratemaking Principles noted in 4.09 as an appendix. Other ASOP's relevant to this case include ASOP 29 (Expense Provisions in Property/Casualty Ratemaking); and, ASOP 30 (Treatment of Profit and Contingency Provisions and the Cost of Capital in Property/Casualty Insurance Ratemaking).

5: ANALYSIS

This section describes the basis for the conclusions and opinions contained in Section 1 (executive summary).

5.01 Reasonable Rate for an Uninsured Subcontractor

Sheet 2 of Appendix MC-A provides a summary of indicated rates per \$1,000 of payroll for liability coverage for various subcontractor classes. The rates are for limits of \$1 million per occurrence / \$1 million annual aggregate as required in Endorsement #10. These rates provide for the primary coverage for subcontractors. I have implicitly assumed that the cost for a subcontractor to purchase its own policy is similar to Steadfast's cost if the subcontractor does not purchase their own policy.⁹

The rates are built up from the following components:

1. Industry (ISO) loss costs for Texas for \$100,000 / \$200,000 limits coverage in effect at the time of Steadfast's policy for selected subcontractor classes. This includes coverage for both premises/operations and completed operations exposure.

⁹ This is another conservative assumption that results in a rate that is generous to Steadfast. In actuality, there is a possibility that claims against an uninsured subcontractor may be paid by the subcontractor, another co-defendant or other third party and will not necessarily become SpawMaxwell or Steadfast's responsibility.

2. Industry (ISO) factors for Texas to convert from \$100,000 / \$200,000 limits to \$1 million / \$1 million limits.
3. A factor of 1.5 to load claim costs to include a reasonable provision for insurance company overhead expense and cost-and-capital (Appendix MC-A, Sheet 4).

The rates developed in this way vary substantially depending on the type of work performed by the subcontractor. Based on the range of rates on Sheet 2 of Appendix A, I believe it would be actuarially reasonable for Steadfast to utilize a rate of between \$30 and \$65 per \$1,000 of payroll for uninsured subcontractors. The lower end of the range (\$30) roughly corresponds to the average rate for all classes of subcontractor shown. The lower end of the range is greater than the rate for about two thirds of all the classifications shown. The upper end of the range (\$65) is greater than the rate for all classifications shown except roofing and pile driving. In my opinion, the upper end of the range will exceed the average rate for all classifications based on realistic mixes of SpawMaxwell's subcontractors by classification.

This range corresponds to a range of between \$9.00 and \$19.50 per \$1,000 of subcontract cost (see Appendix MC-A, Sheet 1). The \$20 rate used by Steadfast is at upper end of this range, but not so high as to be unreasonable. Based on this, and the variability inherent in the determination of insurance rates, I concluded that Steadfast's actual charge of \$20 per \$1,000 of subcontract cost is reasonable and actuarially justified for uninsured subcontractors.

5.02 Probability of an Insurance Company becoming Impaired

Sheet 2 of Appendix MC-B provides a summary, by Best's Financial Strength Rating, of the probability that an insurance company may become financially impaired at some point in the 15 years it is estimated to take for all liability claims to be settled. The probabilities are weighted together with the payment pattern to calculate the probability that liability claim payments may become impaired. The probability of impairment varies according to Best's Financial Strength Rating and ranges from 0.89% (A++/A) to 21.73% (D).

The impairments calculated on Sheet 2 of Appendix MC-B tend to overstate the probability that claims will not be paid. This is because impairment does not mean that claims will not be paid either in full or part. However, even these overstated ratings are all substantially less than 100% indicating that the risk to Steadfast from an insured subcontractor is substantially less than an uninsured subcontractor.

For example, the calculation on Sheet 2 of Appendix MC-B indicates that there is just a 2.19% chance that insurance with an A- Best's Financial Strength Rating will be impaired over the fifteen year payment pattern. In other words there is less than a 2.19% chance that insurance will be unavailable. This is substantially different than an uninsured subcontractor where there is a 100% chance that insurance will be unavailable. It should be noted that even subcontractors insured by D rated company have less than a 22% chance that insurance will be unavailable and are substantially different from uninsured subcontractors.

5.03 Steadfast's Rate for Insured Subcontractors is not actuarially justified

Steadfast's rate of \$20 per \$1,000 of subcontract cost is not actuarially justified for insured subcontractors. This is because the risk to Steadfast from insured contractors is many time less than uninsured subcontractors (see 5.02 above). Thus, while the rate of \$20 is reasonable for uninsured subcontractors, it is many times overstated for insured subcontractors.

The unreasonableness of Steadfast's approach of assuming the risk of an insured subcontractor with a company with a Bests Financial Strength Rating of A- or lower is the same as an uninsured subcontractor can be appreciated by considering the specific insurance companies involved. For example, Steadfast's auditor included charges on account of State Farm Lloyds, a unit of State Farm Insurance Group – the largest personal lines group in the United States. In addition, AM Best describes companies with ratings of B+ and above as “secure,” – contrary to Steadfast's position that they are equivalent to “uninsured.”

5.04 Actuarial Rates for Insured Subcontractors

Sheet 1 of Appendix MC-B provides the development of actuarial rates for insured contractors. The rates are developed based on the \$20 rate for uninsured contractors adjusted for the probabilities of impairment from Sheet 2 of Appendix MC-B. In this calculation, I equated impairment with non-payment of claims. This is undoubtedly a conservative assumption and tends to cause the rates to be biased high. The rates developed on Sheet 1 of MC-B are also summarized on Attachment MC-1.

5.05 Practical Impact of Actuarial Rates Compared to Steadfast's \$20 rate.

Attachment MC-2 illustrates the practical impact of the actuarial rates. Specifically, if the actuarial rates are applied to the (non-corrected) results of Steadfast's audit the indicated premium is \$161,169. This is substantially less than \$536,369 indicated by Steadfast's \$20 rate. It is stressed that Attachment MC-2 is for illustrative purposes only. Before Attachment MC-2 is used to determine an actual charge, it is first necessary to correct the auditor's errors in assigning Best's ratings and in determining whether or not a subcontractor was insured. Once these corrections have been made, Attachment MC-2 should be recalculated and updated.

5.06 Observations about Ratings Assigned by Steadfast's Auditor.

Although not part of my review, during the course of my work I noticed that certain of the Best's ratings assigned by Steadfast's auditor (see Attachment MC-3) appear to be in error. For example:

1. There are a number of insurance companies identified using the words Commercial Union, CGU or One Beacon that receive an NR by Steadfast's auditor. We understand that One Beacon is an outgrowth of the old Commercial Union Insurance Group. In particular CGU Insurance Company was changed to One Beacon Insurance Company on August 28, 2001. We understand that throughout the period of Steadfast's policy One Beacon had a Best's rating of A. It appears that the insurance agents who completed the certificates of insurance may not have properly updated the company name and that Steadfast's auditor did not considered the impact of any name change.
2. There are a number of companies that appear to belong to the Kemper Group variously identified by the auditor as "Kemper", "American Motorists/Ke" and "Lumbermen's Mutual." The auditor has assigned a Bests rating of D and in one case NR. In fact, we believe that at the start of Steadfast's policy (5/29/2002) all these companies had Kemper's ratings of A-. This rating then rapidly deteriorated as follows: 12/24/02 B+,

3/03/03 B, 5/1/03 C++, and 6/10/03 D. It appears Steadfast's auditor has assigned a rating based on the situation a few weeks after the policy expired and not considered what happened during the time the policy was effective.

3. Clarendon American is shown as NR – presumably this is really Clarendon America. I understand this company was A rated during the policy term.
4. Clarendon National is shown as A-. I understand this company was A rated during the policy term.
5. Michigan Mutual is shown as NR – presumably this is really Amerisure an A rated company that was a renaming of Michigan Mutual.
6. Southern Vanguard is shown as A-. I understand that this company was A rated for most of the Policy period (until March 21, 2003).
7. Hanover Lloyd's is shown as A-. I understand that this company was A rated for a portion of the policy period until September 27, 2002.

Attachment MC-2

SPAWMAXWELL**ILLUSTRATION OF DEVELOPMENT OF PREMIUM FOR SUBCONTRACTORS
USING STEADFAST AUDIT AND MCG ACTUARIALLY INDICATED RATES**

Best's Rating	Subcontract Cost Per SteadFast Audit (a)	Steadfast Rate (a)	MCG Actuarially Indicated Rate (b)	Steadfast Premium (a) [(2)x(3)/1000]	MCG Premium [(2)x(4)/1000]
(1)	(2)	(3)	(4)	(5)	(6)
A-	\$ 11,488,599	\$ 20.00	\$ 0.26	\$ 229,772	\$ 3,014
B++	5,363,543	20.00	0.69	107,271	3,712
B+	1,767,202	20.00	0.69	35,344	1,223
D	681,336	20.00	4.21	13,627	2,865
NR	1,651,434	20.00	20.00	33,029	33,029
No Insurance	5,866,309	20.00	20.00	117,326	117,326
	\$ 26,818,423			\$ 536,369	\$ 161,169

**For Illustrative Purposes Only. Does not reflect corrections to
SteadFast's audit for mis-rated companies and subcontractors
mis-classified as "no insurance."**

Note: (a) Provided to MCG by Counsel to SpawMaxwell.
(b) See Attachment MC-1

Attachment MC-3

SPAWMAXWELL

SUMMARY OF BEST'S RATING DETERMINED BY STEADFAST
FOR MCG SELECTED INSURANCE COMPANIES

Insurer	Steadfast's Best's Rating	MCG Notes
(1)	(2)	(3)
American Motorists/Ke	D	?? Part of Kemper. See note under "Kemper."
American States of Texas	NR	?? Part of Safeco, Best's Rating A
Atlanta Mutual	B++	Rated A- until 03/31/03
Builders Risk&Contract	NR	
CGU Commercial	NR	?? Commercial Union now called OneBeacon, Best's Rating A.
CGU/One Beacon	NR	?? Commercial Union now called OneBeacon Best's Rating A.
Clarendon American	NR	?? Clarendon America, Best's Rating A-, Rated A until 11/04/03
Clarendon National	A-	Best's Rating A until 11/04/03
Commercial Union	NR	?? Commercial Union now called OneBeacon Best's Rating A.
Dynamic Glass	NR	?? Not an insurance company
Firemans Fund Ins Co		Best's Rating A
Hanover Lloyds	A-	Best's Rating A until 09/27/02
Heartland Marketing	NR	
Houston Surplus Lines	NR	?? Houston Casualty Company, Best's Rating A+
Insurance Corp of Hanover	A-	Best's Rating A until 11/04/03; then A-
Kemper Group	D	Kemper ratings were: 5/29/2002 A-, 12/24/02 B+, 3/03/03 B, 5/1/03 C++, 6/10/03 D.
Lincoln American/Usr	NR	?? Best's Rating A-
Lumbermens Mutual	NR	?? Part of Kemper. See note above
Michigan Mutual	NR	?? Now called Amerisure Best's Rating A
Monticello Insurance Co		Best's does not assign rating. Company is owned by Allianz and was in runoff and transferred to Firemans Fund (A)..
One Beacon	NR	?? Best's Rating A.
Safeguard	NR	?? Merged into Security Ins Co or Hartford 12/31/04.(always part of Royal Group). Best's Rating A-
Southern Vanguard	A-	Best's Rating A until 03/21/03.
Underwriters of Lloyds		Best's Rating A-
United National Ins Co		Best's Rating A.

Source: (a) Columns (1) and (2) provided to MCG by Counsel to SpawMaxwell.

Bolded companies were not included in Steadfast's audit.

(b) Column (3) added by MCG based on review of (1) and Best's Insurance Reports (2006).

Appendix MC-A
Sheet 1 of 4

DEVELOPMENT OF INDICATED RATE PER \$1,000 OF SUBCONTRACT
COST BASED ON TEXAS INDUSTRY EXPERIENCE
\$1M / \$1M POLICY LIMITS

UNINSURED SUBCONTRACTOR

Item		Mid Rate		High Rate	
(1)	Rate per \$1,000 Payroll (a)	\$	30.00	\$	65.00
(2)	Ratio of Payroll / Subcontract Cost (b)		30%		30%
(3)	Rate Per \$1,000 of Sub-Contract Cost [(1) x (2)]	\$	9.00	\$	19.50

Note: (a) See Appendix MC-A, Sheet 2.

(b) See Appendix MC-A, Sheet 3.

Appendix MC-A
Sheet 2 of 4

SPAWMAXWELL

DEVELOPMENT OF INDICATED RATES PER \$1,000 OF PAYROLL FOR \$1M/\$1M COVERAGE
SELECTED CONSTRUCTION CLASSIFICATIONS
ASSUMING NO OTHER INSURANCE COVERAGE

Code	Description	Industry Loss Cost At \$100K/\$200K Limit (a)		Industry Increased Limit Factors (b)		Loss Cost Multiplier (c)	Indicated \$1M/\$1M Rate Per \$1000 Payroll (d)
		Operations	Completed Operations	Premises/ Operations	Completed Operations		
96611	Interior Decorators	\$ 2.83	\$ 0.68	1.29	1.27	1.50	\$ 6.77
91551	Communication Equipment Installation	3.46	0.66	1.49	1.95	1.50	9.66
92478	Electrical work - within building	4.12	0.82	1.49	1.95	1.50	11.61
92338	Drywall Installation	4.45	0.71	1.49	1.59	1.50	11.64
95124	Furniture/Fixture Installation	4.02	1.66	1.29	1.59	1.50	11.74
98305	Painting - Interior	5.19	1.08	1.49	1.27	1.50	13.66
99746	Tile/Stone Work Interior	6.46	1.27	1.29	1.27	1.50	14.92
91150	Appliance Installation / Servicing (Commercial)	5.35	2.96	1.29	1.27	1.50	15.99
97447	Masonry	5.30	1.31	1.76	1.59	1.50	17.12
94569	Floor Covering Installation	6.71	1.49	1.49	1.27	1.50	17.84
96410	Insulation Work	6.26	3.02	1.49	1.27	1.50	19.74
98884	Sheet Metal work	6.60	0.93	1.76	1.95	1.50	20.14
97222	Industrial equipment Installation	5.69	2.93	1.76	1.59	1.50	22.01
92215	Driveway, parking Area Paving/Repaving	9.53	0.92	1.49	1.27	1.50	23.05
92451	Electrical Apparatus Installation	7.11	3.00	1.49	1.59	1.50	23.05
96409	Insulation Work	8.92	1.64	1.49	1.27	1.50	23.06
94404	Fireproofing Structures	7.46	2.51	1.49	1.95	1.50	24.01
98967	Siding Installation	7.70	1.37	1.76	1.95	1.50	24.34
98482	Plumbing Commercial	9.47	1.87	1.49	1.59	1.50	25.63
91436	Ceiling/wall Installation	9.59	1.50	1.49	1.95	1.50	25.82
95647	Heating/AC Installation	8.09	3.31	1.49	1.59	1.50	25.98
96408	Insulation Work	8.89	3.67	1.49	1.27	1.50	26.86
98304	Painting - Exterior	11.10	1.24	1.49	1.27	1.50	27.17
91746	Door, Window, Assembled Millwork Installation	9.34	2.74	1.49	1.59	1.50	27.41
97650	Metal Erection - Decorative	8.77	2.13	1.76	1.95	1.50	29.38
91560	Concrete Construction	8.54	3.25	1.76	1.59	1.50	30.30
91341	Carpentry Interior	11.00	2.15	1.49	1.59	1.50	29.71
91342	Carpentry NOC	10.60	2.32	1.76	1.59	1.50	33.52
97655	Metal erection - Structural NOC	13.80	2.78	1.76	1.95	1.50	44.56
98502	Prefabricated Building Erection	13.80	3.77	1.76	1.95	1.50	47.46
99165	Steam Pipe / Boiler Insulation	4.22	12.50	1.76	1.95	1.50	47.70
97651	Metal Erection - Frame Structures	15.50	4.44	1.76	1.95	1.50	53.91
98303	Painting - Exterior	22.40	2.46	1.49	1.59	1.50	55.93
94381	Fire Suppression Systems Installation	13.90	8.26	1.76	1.59	1.50	56.40
94007	Excavation	25.70	3.05	1.49	1.59	1.50	64.71
98413	Pile Driving	29.60	5.34	1.76	1.95	1.50	93.76
98677	Roofing Commercial	38.90	6.46	1.49	1.27	1.50	99.25
Average							31.24
Selected - Mid							30.00
Selected - High							65.00

Notes: (a) ISO loss costs at \$100,000 / \$200,000 limit for Texas effective May 2002 (GL-TX-2002-LC-001)
 (b) ISO factors (originally effective 10/2000) to convert from \$100,000 / \$200,000 limit to \$1M / \$1M limit.
 (c) See Appendix MC-A, Sheet 4.



Appendix MC-A
Sheet 3 of 4**SPAWMAXWELL****REVIEW OF THE RELATIONSHIP BETWEEN VALUE OF WORK DONE AND
PAYROLL FOR THE US CONSTRUCTION INDUSTRY
(\$ MILLIONS)**

<u>Construction Industry Segment</u>	<u>Value of Work Done (a)</u>	<u>Payroll (a)</u>	<u>Payroll/Value</u>
(1)	(2)	(3)	[(3) / (2)] (4)
Building, Developing and General Contracting	531,162	61,882	12%
Heavy Construction	155,468	35,949	23%
Special Trade Contractors	453,737	137,699	30%
Total	1,140,367	235,530	21%
(4) MCG Selected Ratio of Payroll to Subcontract cost For SpawMaxwell's Subcontractors			30%

Note: (a) Statistical Abstract of the United States (2004-2005), Table No. 919.
Amounts are for 2002

Appendix MC-A
Sheet 4 of 4

SPAWMAXWELL

DEVELOPMENT OF LOSS COST MULTIPLIER ACCOUNT FOR
OVERHEAD EXPENSES AND PROFIT IN THE INSURANCE RATE

Year	Industry Expense As % of Premium (a)				Target	Subtotal	Indicated
	Commissions (b)	Other Expenses	Policyholder Dividends	Subtotal [(2)+(3)+(4)]	Underwriting Profit & Profit (c)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1999	13.4%	13.2%	0.2%	26.8%	5.0%	31.8%	1.47
2000	13.8%	13.2%	0.3%	27.3%	5.0%	32.3%	1.48
2001	13.3%	11.2%	0.1%	24.6%	5.0%	29.6%	1.42
2002	13.2%	10.2%	0.1%	23.5%	5.0%	28.5%	1.40
2003	13.0%	9.1%	0.1%	22.2%	5.0%	27.2%	1.37
Average	13.3%	11.4%	0.2%	24.9%	5.0%	29.9%	1.43

(9) Selected Loss Cost Multiplier (d)

1.50

Notes: (a) Countrywide industry data for "other liability" from Best's Aggregates and Averages, 2004 Edition, Page 361

(b) The commission expenses for Texas only from Best's Database Services are:

	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>Average</u>
Zurich	10.5%	10.3%	9.8%	10.2%
All Companies	13.8%	14.1%	13.5%	13.8%

(c) Selected by MCG to be at upper range of reasonable values.

(d) Selected at upper range of values in (8).

Appendix MC-B
Sheet 1 of 2

SPAWMAXWELL

DEVELOPMENT OF ACTUARIALLY INDICATED RATE FOR STEADFAST'S EXPOSURE PER \$1,000 SUBCONTRACT COST
BY BEST RATING OF SUBCONTRACTOR'S PRIMARY INSURANCE COMPANY
BASED ON BASE RATE OF \$20 PER \$1,000 OF SUBCONTRACT COST FOR NO INSURANCE

	Assuming 100% of Impaired Claim is Uncollectible (Selected)							
	A++/A+	A/A-	B++/B+	B/B-	C++/C+	C/C-	D	No Insurance
(1) Expected Proportion of Claims Impaired (a)	0.89%	2.19%	4.32%	8.20%	10.94%	16.04%	21.73%	
(2) Portion of Impaired Claims Unpaid (b)	100%	100%	100%	100%	100%	100%	100%	
(3) Expected Proportion of Claims Unpaid [(1) x (2)]	0.89%	2.19%	4.32%	8.20%	10.94%	16.04%	21.73%	
(4) Expected Portion of Claims Paid [100% - (3)]	99.11%	97.81%	95.68%	91.80%	89.06%	83.96%	78.27%	
(5) Relativity to A++/A+ Portion Paid [(4) / 99.11%]	100.00%	98.69%	96.54%	92.62%	89.86%	84.71%	78.97%	0.00%
(6) Relativity to Uninsured Portion Unpaid [100% - (5)]	0.00%	1.31%	3.46%	7.38%	10.14%	15.29%	21.03%	100.00%
(7) Indicated Rate Based on \$20 Base {20 x (6)}	-	0.26	0.69	1.48	2.03	3.06	4.21	20.00

Notes:

(a) See Appendix MC-B, Sheet 2.

(b) Selected by MCG. Selection reflects assumption that an impaired company will not pay any portion of its claims. This is conservative and results in an overstated rate because in reality, impaired companies are likely to pay all or part of their claims.

Appendix MC- B
Sheet 2 of 2

SPAWMAXWELL

PROBABILITY OF CLAIM PAYMENT IMPAIRMENT

Year	Claim Payout (a)	Best's Rating At Beginning of Year						
		A++/A+	A/A-	B++/B+	B/B-	C++/C+	C/C-	D
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Probability of Company Becoming Impaired (b)								
1	19.1133	0.06%	0.24%	0.54%	1.80%	2.65%	5.51%	7.20%
2	17.3301	0.21%	0.64%	1.52%	3.73%	4.74%	8.43%	12.20%
3	15.7215	0.39%	1.16%	2.44%	5.56%	7.45%	11.12%	16.92%
4	11.0734	0.59%	1.68%	3.72%	7.26%	10.27%	14.17%	21.25%
5	8.8397	0.78%	2.29%	5.09%	9.07%	12.77%	17.38%	25.58%
6	3.8241	1.04%	2.97%	6.35%	10.97%	15.15%	21.58%	29.72%
7	7.0284	1.32%	3.67%	7.68%	12.79%	17.52%	25.04%	33.39%
8	2.2136	1.63%	4.43%	8.68%	14.73%	20.28%	28.68%	36.57%
9	4.1565	2.03%	5.10%	9.43%	16.57%	22.48%	31.63%	39.43%
10	1.7832	2.45%	5.78%	10.24%	18.20%	24.37%	33.81%	42.13%
11	1.7832	2.89%	6.48%	11.10%	19.80%	26.13%	36.36%	44.58%
12	1.7832	3.39%	7.08%	12.15%	21.55%	27.57%	38.21%	46.48%
13	1.7832	3.91%	7.70%	13.05%	23.37%	28.54%	39.61%	48.27%
14	1.7832	4.45%	8.23%	13.92%	25.12%	29.86%	41.10%	49.69%
15	1.7834	4.86%	8.69%	14.56%	26.54%	30.82%	42.75%	50.94%
Total / Weighted Average (c)	100.0000	0.89%	2.19%	4.32%	8.20%	10.94%	16.04%	21.73%

Notes:

- (a) Reflects estimated payout of liability claims over a 15 year period from policy effective date. Pattern based on factors promulgated by the Internal Revenue Service (Bulletin - January 12, 2004 - Rev. Proc. 2004-9) . Details available on request.
- (b) Probability of insolvency by Best's Rating based on historical experience as reported in Best's Impairment Rate and Rating Transition Study - 1977 to 2002.

APPENDIX MC-C: DATA SOURCES

In preparing this report, I relied on the following sources of data:

Texas General Liability Statistics: This included the following material published by Insurance Services Office, Inc (ISO):

- Texas general liability loss costs effective May 2002 (Notice GL-TX-2002-LC-001). This was the source of industry average claim costs per \$1000 of payroll for various construction classes for \$100,000/\$200,000 limits of coverage.
- Texas general liability increased limits factors effective October 2000 (Notice GL-TX-2000-RU-001). These factors were used to adjust industry claim costs to \$1 million / \$1 million limits of coverage.
- ISO Classification Plan. This plan sets forth the definitions of the numerical codes used to identify different construction (and other) businesses.

I used these sources as the basis to evaluate the reasonableness of Steadfast's rate of \$20 per \$1000 of subcontract cost to rate uninsured subcontractors.

Insurance Industry Statistics: This included compilations of industry experience in Texas and countrywide published by A.M Best Company (this is the same company that publishes Best's Financial Strength Ratings discussed below). This included Best's Aggregates and Averages (2004 edition) and Best Database Services (2002-2004 editions). These are standard sources used by actuaries for ratemaking and other purposes. I used these sources to determine a reasonable expense provision to include in the actuarial rates.

Explanation of Best's Rating System: This included the following published by the A.M. Best Company:

- The preface to the 2006 Insurance Reports – Property/ Casualty. This document provides an explanation of the financial strength rating system.
- Best's Impairment Rate and Rating Transition Study 1977-2002. This study correlates Best's ratings with subsequent financial performance of insurance companies. I used this document to determine the probability that an insurance company with a given Best's Financial Strength Rating may become impaired at some time in the future.

A.M. Best's Financial Strength Ratings by Company. This source was the 2006 Insurance Reports – Property/Casualty published by A.M. Best. For each insurance company this includes a narrative on the company, details on name changes, a history of the Best Financial Strength Rating and other information.

Summary of Steadfast's Audit: This source was provided by SpawMaxwell's counsel and consisted of an Excel spreadsheet "Insurance Audit per Steadfast.xls." The spreadsheet contained summaries of the amounts of subcontract cost and premium by insurance company and Best's Financial strength Rating.

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Sheet 2 of 2

Claims Payout Pattern: I used the general liability payout pattern included in Internal revenue Bulletin – January 12, 2004 – Rev. Proc. 2004-9. This is a standard source of payout patterns and is based on composite US insurance industry experience.

Relationship between Payroll and Contract Value: I used information on the construction industry collected by the US Census Bureau and reported in Table 919, Statistical Abstract of the United States to estimate the relationship between payroll and contract value.

Policy Form: Counsel for SpawMaxwell provided copies of the policy form and endorsements with Bates Numbers SFI000033 through SFI000078.

Actuarial Standards of Practice: The following ASOP's are particularly relevant to this case:

- ASOP 9 (Documentation and Disclosure in Property and Casualty Insurance Ratemaking, Loss Reserving, and Valuations);
- ASOP 29 (Expense Provisions in Property/Casualty Ratemaking); and,
- ASOP 30 (Treatment of Profit and Contingency Provisions and the Cost of Capital in Property/Casualty Insurance Ratemaking).

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California Institute of Technology, Pasadena, California (1980-84) Ph.D.,
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Oxford University, Oxford, England (1977-1980) B.A. (Highest Honors), M.A.
(Mathematics). Scholarship student and recipient of several academic prizes.

Professional Qualifications

Fellow, Casualty Actuarial Society
Member, American Academy of Actuaries

Professional Employment History

Rolls Royce Aerospace Ltd. (Bristol, England)
Summer Intern (1979)

California Institute of Technology (Pasadena, California)
Teaching Assistant (1981-83)
Lecturer, Summer Program (1983)
Lecturer, Advanced Placement Program (1984)

Milliman & Robertson (Los Angeles, California)
Actuarial Analyst (1984-86)
Assistant Actuary (1986-88)

Madison Consulting Group, Inc. (Madison, Georgia)
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Vice President of Wakely and Associates, Inc. (1989-1999)
Secretary-Treasurer of Madison Consulting Group, Inc. (1999-Present)

Professional Activities

- Society of Actuaries and Casualty Actuarial Society Joint Committee on Examinations:
Member, Parts 1 and 2. (Calculus, Linear Algebra, Probability and Statistics)
(1990-1992)
- Casualty Actuaries of the Southeast Seminar:
Instructor, CAS Part 7 Examination (Three-day Seminar on Loss Reserving)
- President (1993-1994) - Casualty Actuaries of the Southeast
- Casualty Actuarial Society Meeting
Dallas, Texas 1993
Panelist - Current Texas Insurance Issues
- Texas Automobile Insurance Services Office
Dallas, Texas 1993
Speaker: Mid-Year Property/Casualty Insurance Symposium
- Conference of Consulting Actuaries
San Diego, California 1996
Speaker: Catastrophe Pooling

Professional Organizations

Casualty Actuarial Society, Fellow
American Academy of Actuaries, Member
Casualty Actuaries of the Southeast, Member

EXPERT TESTIMONY

Austin, Texas, May 2007
State Farm Lloyds v. Texas Department of Insurance
State Office of Administrative Hearings
No. 454-06-3176.F
Expert Report; Testimony

New York, New York, December 2006
Ferguson v. Hannover Re
U.S. District Court, Southern District of New York
No. 4 Civ. 9254 (PKL)
Expert Report; Testimony

Austin, Texas, August 2006
Texas Department of Insurance Biennial Title Insurance Rate Hearing
Administrative Hearing
Expert Report, Testimony

New York, New York July 2006
Gulf Insurance Company v. Trans Atlantic Re
Supreme Court of the State of New York
No. 601602/03
Expert Report; Ongoing

Atlanta, Georgia, June 2006
Florida Windstorm Underwriting Association v. United States of America
United States District Court for the Northern District of Florida
No. 4:05cv338-WS/WCS (N.D. Fla.)
Expert Report; Deposition

Columbus, Ohio, April 2006
Benjamin v. Grant Thornton, LLP
Court of Common Pleas
01 CVG-10-10711
Expert Report; Deposition, Ongoing

Orlando, Florida, December 2005
Florida Birth-Related Neurological Injury Compensation Association (Nica) v. American United Life Risk Management Services, Et Al (Aulrms)
Arbitration Hearing

Austin, Texas, October 2005
Texas Department of Insurance Allstate Texas Lloyds Homeowner Rate Hearing
No. 454-05-3075.F
Administrative Hearing

Minnesota, July 2005
Benjamin (Creditor) v. NuCorp, Ltd. (Debtor)
U.S. Bankruptcy Court, District of Minnesota
Expert Report; Deposition

New York, New York, June 2005
Deposition, Expert Report, Testimony
Confidential Reinsurance Arbitration

Austin, Texas, July 2004
Texas Department of Insurance Medical Protective Company Rate Hearing
Administrative Hearing

New York, New York, June 2004
Deposition, Testimony
Confidential Reinsurance Arbitration

Kansas, February 2004
ERC v. Clarendon
U.S. District Court, District of Kansas
Expert Report; Deposition

Austin, Texas, December 2003
Texas Department Of Insurance Biennial Title Insurance Rate Hearing
Administrative Hearing

Oklahoma City, Oklahoma, September 2003
Oklahoma Board for Property and Casualty Rates
NCCI Workers Compensation Rate Hearing
Administrative Hearing

Austin, Texas, September 2003
Texas Department Of Insurance Farmers Insurance Exchange Homeowner Rate
Hearing; Administrative Hearing

Austin, Texas, September 2003
Texas Department Of Insurance State Farm Lloyds Homeowners Rate Hearing
Administrative Hearing

District of Columbia, May 2003
Deposition, Testimony
Confidential Reinsurance Arbitration

Appendix MC-D
Sheet 5 of 6

San Francisco, California, April 2003
HHH in Liquidation; Metcalf v. Castro, Superior Court of State of California
County of San Mateo

Raleigh, North Carolina, July 2002
North Carolina Dept. of Ins. Auto Insurance Rate Hearing
Administrative Hearing

Austin, Texas, February 2002
Biennial Title Insurance Rate Hearing
Administrative Hearing

Oklahoma City, Oklahoma, August 2001
Oklahoma Board for Property and Casualty Rates
NCCI Workers Compensation Rate Hearing
Administrative Hearing

Austin, Texas, April 2001
Texas Auto Insurance Plan Association Rate Hearing
Administrative Hearing

Austin, Texas, March 2001
Texas Auto Benchmark Rate Hearing
Administrative Hearing

Jacksonville, Florida, February 2001
Labor Ready v. Gates McDonald
U.S. District Court, Middle District of Florida, Jacksonville Division

Oklahoma City, Oklahoma, September 2000
Oklahoma Board for Property and Casualty Rates
NCCI Workers Compensation Rate Hearing
Administrative Hearing

Austin, Texas, December 2000
Property Insurance Benchmark Rate Hearing
Administrative Hearing

Austin, Texas, December 1999
Texas Auto Insurance Plan Association rate Hearing
Administrative Hearing

Austin, Texas, November 1999
Biennial Title Insurance Rate Hearing
Administrative Hearing

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Austin, Texas, November 1999
Texas Auto Insurance Plan Association Rate Hearing
Administrative Hearing

Austin, Texas, September 1999
Texas Auto Benchmark Rate Hearing
Administrative Hearing

Austin, Texas, September 1999
Biennial Title Insurance Rate Hearing
Administrative Hearing

Austin, Texas, July 1999
Texas Private Passenger Auto Hearing
Administrative Hearing

Austin, Texas, June 1999
Texas Property Benchmark Rate Hearing
Administrative Hearing



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Virginia Polytechnic and State University (1985) M.S. (Statistics)
Virginia Polytechnic and State University (1989) Ph.D. (Economics)

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Member, American Academy of Actuaries

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Virginia Polytechnic and State University (Blacksburg, Virginia)
Statistical Analyst (1985-1986)

Radford University (Radford, Virginia)
Instructor (1986-1987)

Virginia Military Institute (Lexington, Virginia)
Instructor (1987-1989)

Gordon College (Barnesville, Georgia)
Assistant Professor (1989-1996)

National Council on Compensation Insurance (NCCI) (Boca Raton, Florida)
Economic Research Associate (1996-1999)

Tillinghast (Atlanta, Georgia)
Senior Analyst (1999-2002)
Consulting Actuary (2002-2003)

Madison Consulting Group, Inc. (Madison, Georgia)
(formerly Property/Casualty Division, Wakely and Associates, Inc.)
Consulting Actuary (2003-present)

Professional Experience

Experience in a wide variety of assignments in property/casualty insurance, including:

- Ratemaking Studies for Personal and Commercial Lines
- Trend Analysis
- Medical Fee Schedule Evaluation
- Drug-Free Workplace Analyses
- Loss and Loss Expense Reserve Analyses

Professional Activities

Chairperson (2002-2003)
Casualty Actuarial Society Forum Committee